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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,286	11/03/2003	Jalil Fadavi-Ardekani	J. FADAVI-ARDEKANI	4511
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HITT GAINES, PC LSI Corporation PO BOX 832570 RICHARDSON, TX 75083			EXAMINER ALAM, FAYYAZ	
			ART UNIT 2618	PAPER NUMBER
			NOTIFICATION DATE 05/21/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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<p align="center">Office Action Summary</p>	Application No. 10/700,286	Applicant(s) FADAVI-ARDEKANI ET AL.	
	Examiner Fayyaz Alam	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to applicant's amendment/arguments filed on 2/28/2007. **This action is non-FINAL.**

Response to Arguments

Applicant's arguments with respect to claims 1 - 27 have been considered but are moot in view of the new ground(s) of rejection.

Please see rejection below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 - 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ma et al. (USPN 6,563,805)** in view of **Cooper (USPN 2001/0000540)**.

Consider **claims 1 and 8**, Ma et al. disclose system and method for a satellite radio receiver having a demodulator and a digital converter (read as perceptual decoder), a recorder and player (read as a system for recording and playing back data), comprising (see fig. 1; col. 2, lines 6 - 47): a digital buffer (10 and 25) (read as buffer); a controller (16 and 26) (read as recorder controller; see fig. 1) coupled to said digital buffer (read as buffer; see fig. 1), configured to store the encoded digital signals in the digital buffer from the receiver (read as demodulator) before sending it to the playback circuit (read as perceptual decoder) during the operation of the receiver (read as configured to intercept a data stream) (see fig. 1; col. 3, lines 21 - 53).

However, Ma fails to disclose a playback switch, coupled to the recorder controller, configured to receive an external command that causes said recorder

controller to substitute said portion stored in said buffer for said data stream flowing from said demodulator.

In the related field of endeavor, Cooper discloses user initiating a playback cycle (read as playback switch coupled to recorder controller configured to receive an external command; see [0022; 0033]), where, incoming audio stream is recorded in the temporary buffer (read as buffer; see [0034]) and portions of the audio stream is overwritten (read as substitute said portion; see [0035]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Ma with the teachings of Cooper in order to perform record and playback substantially simultaneously.

Consider **claim 2** as applied to claim 1, Ma et al. disclose recording of songs (read as audio data and coordinated lyrics data) (see col. 4, lines 59 - 62).

Consider **claims 3 and 9** as applied to claims 1 and 8, Ma et al. disclose the digital buffer (read as buffer creates a time delay (read as buffer embodied in a portion of a satellite signals delay memory) (see col. 2, lines 34 - 40).

Consider **claims 4 and 10** as applied to claims 1 and 8, Ma et al. disclose said controller (read as recorder controller) controls the buffering (read as store) of encoded digital data (read as data stream) to the digital buffer (read as recorder controller configured to operate continually to cause said portion of said data stream to be stored in said buffer) (see col. 3, lines 38 - 40; col. 6, lines 14 - 25).

Consider **claims 5 and 11** as applied to claims 1 and 8, Ma et al. disclose the user interface allows the user to tune the digital radio receiver to the desired radio

channel (read as satellite radio receiver further has a channel selector and said portion of said data stream is a single channel) (see col. 4, lines 17 - 20).

Consider **claims 6 and 12** as applied to claims 1 and 8, Ma et al. disclose when user does not initiate recording (read as external command) the controller (recorder controller) controls the digital buffer (read as buffer) to start recording (read as substitute said portion) at the beginning (read as defined program point) once the digital buffer is full (read as external command causes said recorder controller to substitute said portion stored in said buffer beginning at a defined program point) (see col. 6, lines 8 - 25).

Consider **claims 7 and 13** as applied to claims 1 and 8, Ma et al. disclose suitable media (32) (read as external memory interface) coupled to controller (26 and 16) (read as recorder controller) is able to record digital data to the media from the digital buffer (read as external memory interface, coupled to said recorder controller, configured to receive said portion stored in said buffer) (see col. 6, lines 55 - 67).

Claims 14 - 18, and 20 - 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ellis et al. (U.S. Application # 2004/0116088)** in view of **Ma (USPN 6,563,805)** and further in view of **Cooper (USPN 2001/0000540)**.

Consider **claims 14 and 20**, Ellis et al. disclose a karaoke satellite receiver, comprising (see fig. 1; abstract): a demodulator (see figs. 1 and 3b) configured to receive plurality of channels including a karaoke signal (read as data channel) (see figs. 1 and 38; [0020]; [0220]); a tuner (read as channel selector) coupled to said demodulator configured to select at least said data channel (see figs. 1, 3b, and 38;

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[0220]); a display device (150) (read as visual display) configured to display lyrics (read as accompanying text) (see [00220]); and a controller (145) (read as text manager) coupled to said display device (read as visual display), configured to display lyrics from the vocal data (read as data channel) on the display device with the audio (read as a text manager, coupled to said visual display, configured to extract said accompanying text from said data channel and cause said visual display to display said accompanying text in coordination with audio being played by said receiver) (see figs. 1, 6a, and 38; [0220]).

However, Ellis et al. fails to disclose a buffer, a demodulator coupled to said buffer, a recorder controller, coupled to said demodulator and said buffer, configured to intercept said data channel flowing from said demodulator during operation of said receiver and cause a portion of said data channel to be stored in said buffer, and a playback switch, coupled to a recorder controller, configured to receive an external command that causes said recorder controller to substitute said portion stored in said buffer for said data channel flowing from said demodulator.

In the related field of endeavor, Ma discloses a digital buffer (10) (read as buffer), an XM radio receiver (8) (read as demodulator) coupled to said buffer for inherently receiving a plurality of channels including data channels (see fig. 1) and a controller (16 and 26) (read as recorder controller; see fig. 1) coupled to said digital buffer (read as buffer; see fig. 1), configured to store the encoded digital signals in the digital buffer from the receiver (read as demodulator) before sending it to the playback circuit (read

as perceptual decoder) during the operation of the receiver (read as configured to intercept a data stream) (see fig. 1; col. 3, lines 21 - 53).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Ellis with the teachings of Ma in order to create a time delay between the real time delivery of audio program selections and the later availability of the signals for recording and playback.

However, Ellis as modified by Ma fails to disclose a playback switch, coupled to a recorder controller, configured to receive an external command that causes said recorder controller to substitute said portion stored in said buffer for said data channel flowing from said demodulator.

In the related field of endeavor, Cooper discloses user initiating a playback cycle (read as playback switch coupled to recorder controller configured to receive an external command; see [0022; 0033]), where, incoming audio stream is recorded in the temporary buffer (read as buffer; see [0034]) and portions of the audio stream is overwritten (read as substitute said portion; see [0035]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Ellis and Ma with the teachings of Cooper in order to perform record and playback substantially simultaneously in accordance with user input.

Consider **claim 15** as applied to claim 14, Ellis et al. disclose the claimed invention but fails to explicitly disclose a buffer; a recorder controller, coupled to said demodulator and said buffer, configured to intercept said data channel flowing from said

demodulator during operation of said receiver and cause a portion of said data channel to be stored in said buffer; and a playback switch, coupled to said recorder controller, configured to receive an external command that causes said recorder controller to substitute said portion stored in said buffer for said data channel flowing from said demodulator.

In the related field of endeavor, Ma et al. disclose system and method for a satellite radio receiver having a demodulator and a digital converter (read as perceptual decoder), a recorder and player (read as a system for recording and playing back data), comprising (see fig. 1; col. 2, lines 6 - 47): a digital buffer (10 and 25) (read as buffer); a controller (16 and 26) (read as recorder controller; see fig. 1) coupled to said digital buffer (read as buffer; see fig. 1), configured to store the encoded digital signals in the digital buffer from the receiver (read as demodulator) before sending it to the playback circuit (read as perceptual decoder) during the operation of the receiver (see fig. 1; col. 3, lines 21 - 53); and an enabling input (read as playback switch) controlled by the user (read as external command) is used for recording data (read as a playback switch, coupled to said recorder controller, configured to receive an external command that causes said recorder controller to substitute said portion stored in said buffer for said data stream flowing from said demodulator) (see col. 4, lines 44 - 48).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to slightly modify the teachings of Ellis et al. with the teachings of Ma et al. in order to implement a more robust satellite radio system.

Consider **claims 16,17, 21 and 22** as applied to claims 14 and 20, Ellis et al. disclose receiving lyrics (read as data channel) and audio signals (read as audio channel) together or separately (read as channel selector is configured to select both said data channel and an associated audio channel, said audio channel providing said audio and channel selector is configured to select only said data channel, said data channel including audio data, said audio data being decoded to provide said audio) (see figs. 1 and 3b; [0220]).

Consider **claims 18 and 23** as applied to claims 14 and 20, Ellis et al. disclose a karaoke system with lyrics and music or audio signals (read as accompanying text is lyrics and said audio is music) (see figs. 1, abstract; [0020; 0220]).

Claims 19 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ellis et al. (U.S. Application # 2004/0116088)** in view of **Ma (USPN 6,563,805)** in view of **Cooper (USPN 2001/0000540)** and further in view of **Hattori et al. (U.S. Application # 2002/0066097)**.

Consider **claims 19 and 24** as applied to claims 14 and 20, Ellis as modified above fail to disclose data channel comprises musical instrument device interface (MIDI) synthesizer commands.

In the related fields of endeavor, Hattori et al. disclose MIDI data as part of karaoke data (read as data channel comprises musical instrument device interface (MIDI) synthesizer commands) (see [0145]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Ellis, Ma, and Cooper with

the teachings of Hattori et al. in order to implement a more robust karaoke system which approaches the level of a stand alone system.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Hattori et al. (U.S. Application # 2002/0066097)** and further in view of **Kamiya (USPN 5,899,699)**.

Consider **claim 25**, Hattori et al. disclose a karaoke satellite radio service, comprising (see fig.7): a data transmission center (101) (read as database of audio data and accompanying text); a broadcasting center (102) (read as program manager) coupled to the data transmission center (101) (read as database), configured to multiplex and modulate data for transmission (read as configured to select portions of said audio data and accompanying text from said database for broadcast; see [0145-0146]); and a transmitter within the broadcasting center (102), since it is capable of data transmission, configured to transmit karaoke data (read as configured to transmit a plurality of channels, including a data channel containing at least said accompanying text and control data that allows a display of said text to be coordinated with a playback of said audio) (see [0144 - 0146]).

However, a program manager, coupled to said database, configured to select portions of said audio data and accompanying text from said database for broadcast.

In the related field of endeavor, Kamiya discloses a central station (read as program manager) for selecting song data pieces (read as select portions of audio and accompanying text) for broadcast (see abstract; col. 2, lines 19 - 35; col. 3, lines 30 - 47; figs. 1, 3, and 4).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Hattori with the teachings of Kamiya in order to provide desired karaoke data at the karaoke terminal.

Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hattori et al. (U.S. Application # 2002/0066097)** in view of **Kamiya (USPN 5,899,699)** and further in view of **Ellis et al. (U.S. Application # 2004/0116088)**.

Consider **claims 26 and 27** as applied to claim 25, Hattori et al. fail to disclose audio data on an audio channel separate from said data channel and audio data in said data channel.

In the related field of endeavor, Ellis et al. disclose transmitting and receiving vocal data and audio signals data either separately or together (read as audio data on an audio channel separate from said data channel and audio data in said data channel) (see [0220]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Hattori et al. with the teachings of Ellis et al. in order to implement a more robust karaoke system.

Conclusion

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

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Hand-delivered responses should be brought to

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Fayyaz Alam whose telephone number is (571) 270-1102. The Examiner can normally be reached on Monday-Friday from 9:30am to 7:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

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Fayyaz Alam

May 2, 2007

EDAN ORGAD
PRIMARY PATENT EXAMINER

Edan Orgad 5/10/07